AMENDMENTS TO THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-18 (Canceled).

19. (Currently Amended) A method to balance workloads associated with a binner and renderer ~~in a sequential rendering process~~, comprising:

configuring a size of a cache associated with the renderer and viewed by the binner;

monitoring the binner and renderer for a predefined time period;

detecting whether there is a workload imbalance between the binner and renderer ~~in the sequential rendering process~~; and

in response to detecting the workload imbalance between the binner and the renderer, adjusting the size of the renderer to minimize the workload imbalance ~~in the sequential rendering process~~, wherein the renderer is a demand-based zone renderer.

20. (Previously Presented) The method of claim 19, wherein in response to detecting the workload imbalance between the binner and the renderer, adjusting the size of the renderer to minimize the workload imbalance further comprises:

increasing the size of the renderer in response to the workload imbalance substantially caused by the binner.

21. (Previously Presented) The method of claim 19, wherein in response to detecting the workload imbalance between the binner and the renderer, adjusting the size of the renderer to minimize the workload imbalance further comprises:

decreasing the size of the renderer in response to the workload imbalance substantially caused by the renderer.

22. (Previously Presented) The method of claim 20, wherein the maximum size of the cache viewed by the binner is equal or approximately equal to an associated display size.

23. (Previously Presented) The method of claim 21, wherein the minimum size of the render cache viewed by the binner is equal or approximately equal to the size of the -cache in the renderer.

24. (Previously Presented) The method of claim 19, wherein monitoring the binner and renderer for a predefined period comprises:

polling the renderer for a predefined number of cycles.

25. (Previously Presented) The method of claim 19, wherein monitoring the binner and renderer for a predefined period comprises:

determining an execution time for the binner associated with rendering at least one object in relation to total processing time.

26. (Previously Presented) The method of claim 19, further comprising:

maintaining graphics rendering state variables within each zone to minimize the

workload imbalances between the binner and renderer

27. (Previously Presented) The method of claim 26, further comprising:

storing fast state variables into selected buffers.

28. (Previously Presented) The method of claim 27, wherein storing fast state variables into selected buffers further comprises:

storing frequently changed attributes of geometry into selected fast state variable buffers.

29. (Previously Presented) The method of claim 28, further comprising:

storing slow state variables into selected buffers.

30. (Previously Presented) The method of claim 29, wherein storing slow state variables into selected buffers further comprises:

storing infrequently changed attributes of geometry into selected slow state variable buffers.

31. (Currently Amended) A machine readable medium having stored therein a plurality of machine readable instructions executable by a processor to balance workloads associated with a binner and renderer ~~in a sequential rendering process~~, the machine readable instructions comprising:

instructions to configure a size of a cache associated with the renderer and viewed by the binner;

instructions to monitor the binner and renderer for a predefined time period;

instructions to detect whether there is a workload imbalance between the binner and renderer ~~in the sequential rendering process~~; and

in response to detecting the workload imbalance between the binner and the renderer, instructions to adjust the size of the renderer to minimize the workload imbalance ~~in the sequential rendering process~~, wherein the renderer is a demand-based zone renderer.

32. (Previously Presented) The machine readable medium of claim 31, wherein in response to detecting the workload imbalance between the binner and the renderer, instructions to adjust the size of the renderer to minimize the workload imbalance further comprises:

instructions to increase the size of the renderer in response to the workload imbalance substantially caused by the binner.

33. (Previously Presented) The machine readable medium of claim 31, wherein in response to detecting the workload imbalance between the binner and the renderer, instructions to adjust the size of the renderer to minimize the workload imbalance further comprises:

instructions to decrease the size of the renderer in response to the workload imbalance substantially caused by the renderer.

34. (Currently Amended) An apparatus for rendering at least one graphics object into an image ~~in a sequential rendering process~~ comprising:

a memory region;

a rendering engine; and

a circuit to

configure a size of a memory region viewed by a binner;

monitor the binner and rendering engine for a predefined time period;

detect whether there is a workload imbalance between the binner and renderering engine ~~in the sequential rendering process~~; and

in response to detecting the workload imbalance between the binner and renderering engine, adjust the size of the renderer to minimize the workload imbalance ~~in the sequential rendering process~~, wherein the renderer is a demand-based zone renderer.

35. (Previously Presented) The method of claim 34, wherein the circuit stores frequently changed attributes of geometry into selected areas of memory.

36. (Previously Presented) The method of claim 35, wherein the circuit stores infrequently changed attributes of geometry into selected slow state variable buffers.